

IMMERSION COILS

Supercoil Models 100, 168, 280 FEP, PFA and Q-Series

AMETEK Supercoil Heat Exchangers are high efficiency immersion coils designed for heating and cooling a wide range of metal finishing solutions. Applications include: electroplating, electroforming and electroless plating baths; acidic and alkaline solutions for etching, chemical milling, anodizing, cleaning, stripping, electropolishing and other similar operations. The well-known non-stick characteristics of fluoropolymer resins resist corrosion and fouling, and its high electrical resistance minimizes the effects of stray currents in electroplating tanks.

Supercoil coils are available in FEP and PFA as well as in proprietary Q-Series tubing formulations. Q-Series coils are made using a special fluoro-carbon compound that significantly improves thermal efficiency and increases temperature and pressure capabilities. Q-Series Supercoil coils are ideal for most metal finishing operations, particularly those involving electroless nickel and copper plating.



Supercoil Model 280 (right)
and Ultrahigh Purity (UHP)
Model 168 (below)

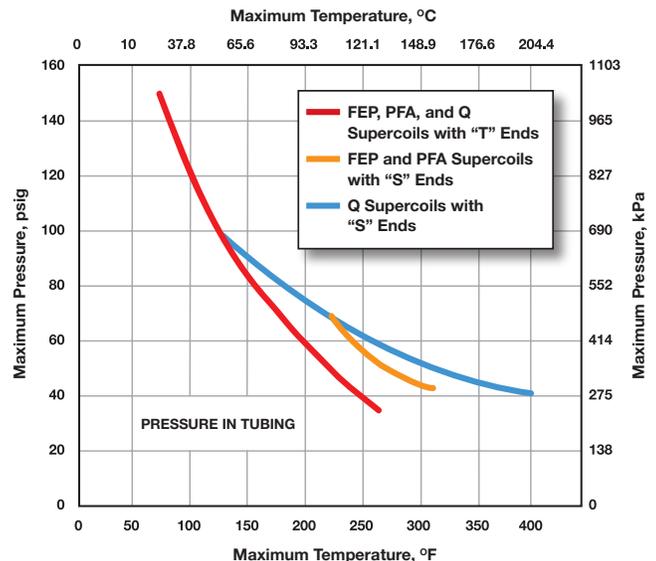
Specifications

Description	Spec
Tube Outside Diameter	0.10 inch (2.54 mm)
Tube Wall Thickness	0.01 inch (254 mm)
Average Heat Transfer Coefficient Q	80 to 120 BTU/Hr.-ft. ² -°F (454 to 682 watts/m ² -°K)
Average Heat Transfer Coefficient FEP	40 to 60 BTU/Hr.-ft. ² -°F (227 to 341 watts/m ² -°K)

Model Number

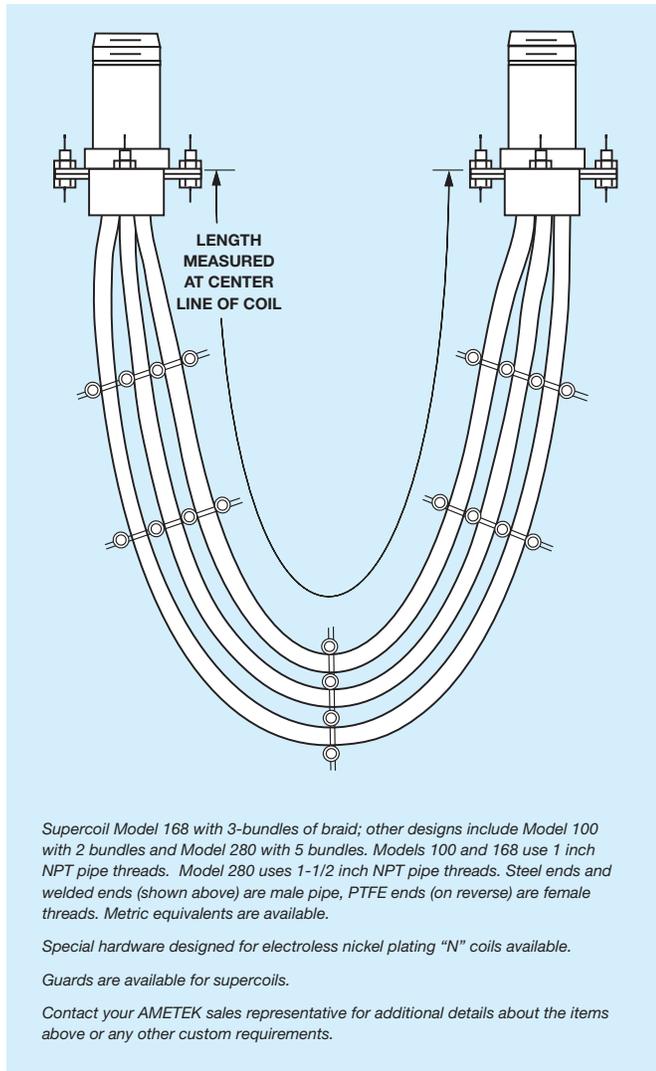
EXAMPLE: Q M 280 N S M 4 8		
Q	RESIN TYPE	P = PFA
		Q = PFA/Graphite
		(blank) = FEP
M	SUPERCIL	
280	MODEL NUMBER	100
		168
		280
N	SPACERS	N = Polypropylene
		(blank) = CPVC
S	END CONNECTIONS	S = Stainless Steel
		T = PTFE
		W = Welded
M	END THREADS	M = Metric
		(blank) = NPT
4	GENERATION	
8	NOMINAL LENGTH (ft.)	

Operating Limits



FEP and PFA Series coils are considered inert to corrosive chemicals. Contact an AMETEK representative for chemical resistance data on your specific application. Q-Series heat exchangers are inert to most corrosive chemicals except for certain concentrated hot, oxidizing acids.

Dimensions – Model 168 Supercoil

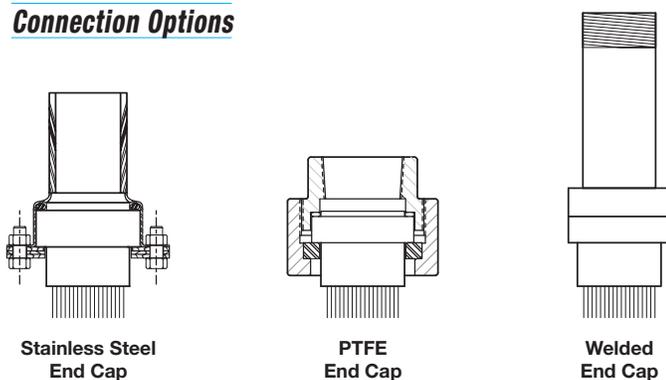


Heat Transfer Area

MODEL 100		MODEL 168		MODEL 280		NOMINAL LENGTH*
AREA		AREA		AREA		
ft ²	m ²	ft ²	m ²	ft ²	m ²	feet
6.5	0.6	11.0	1.0	18.3	1.7	3
9.2	0.9	15.4	1.4	25.6	2.4	4
11.8	1.1	19.8	1.8	33.0	3.1	5
14.4	1.3	24.2	2.2	40.3	3.7	6
		28.6	2.7	47.6	4.4	7
		33.0	3.1	54.9	5.1	8
		37.4	3.5	62.3	5.8	9
		41.8	3.9	69.6	6.5	10
		46.2	4.3	76.9	7.1	11
		50.6	4.7	84.3	7.8	12
		54.9	5.1	91.6	8.5	13
		59.3	5.5	98.9	9.2	14
		63.7	5.9	106.2	9.9	15
		68.1	6.3	113.6	10.5	16

* As measured at center line of coil

Connection Options



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Fluoropolymer resins are generally considered inert to most chemicals. Under certain conditions of pressure and temperature, or combinations of chemicals, fluoropolymer tubing should not be used. Please contact AMETEK for discussion of your specific process to be certain that our products are appropriate for your intended use.

Adequate ventilation should be used where fluoropolymers are heated during tube repairs. Flu-like symptoms may occur from exposure to vapors evolved from fluoropolymers at very high temperatures, up to 800°F or from smoking materials that contain particles of fluoropolymers. Symptoms pass within 48 hours and are the only adverse effects observed in humans to date. Unheated fluoropolymers are essentially inert and are nonirritating to the skin.

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